MICROWAVE OBSERVATION OF THE O_2-CONTAINING COMPLEX, O_2-HCl

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In the realm of small-molecule van der Waals interactions, there exists much experimental and theoretical data for most fundamental atmospheric components. For complexes containing O_2, however, there is actually very little experimental data. This is most likely due to the spin complications brought about by the $^3\Sigma$ state of the molecule. In this talk, the authors will detail the first known measurement of the complex O_2-HCl along with experimental and theoretical analyses of the complex. Previously measured O_2-HF[a] analysis have been used as a guide and this talk will outline similarities and differences in the two species.

[a] S. Wu, G. Sedo, E. M. Grumstrup, and K. R. Leopold, *J. Chem. Phys.*, **127** (2007) 204315.